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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 HANFORD PROJECT OFFICE

712 Swift Boulevard, Suite 5 Richland, Washington 99352

August 11, 2003

Mr. Kevin Leary U.S. Department of Energy PO Box 550, A6-38 Richland, WA 99352



EDMC

Re:

Joint Comments on the 221-U Facility Feasibility Study and Proposed Plan

Dear Mr. Leary:

The Washington State Department of Ecology (Ecology) and the U.S. Environmental Protection Agency (EPA) have reviewed the following documents:

"Final Feasibility Study of the Canyon Disposition Initiative (221-U Facility)" DOE/RL-2001-11, Rev. 1 Draft B

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"Proposed Plan for the Canyon Disposition Initiative (221-U Facility)" DOE/RL-2001-29, Draft D.

Our joint comments for each document are enclosed. The EPA and Ecology request a meeting with the U.S. Department of Energy to discuss our comments and facilitate revision of the documents. If you have any questions, please contact Craig Cameron at 509 376-8665 or Matt Mills at 509 736-5721.

Sincerely,

Craig Cameron
Project Manager

EPA

Matt Mills Unit Manager Ecology

Enclosures (2)

cc:

Joel Hebdon, DOE Rick Bond, Ecology

Craig Carrecon

John Price, Ecology

Oly Serrano, FHI

Administrative Record: U-Plant CDI

Washington State Department of Ecology (Ecology) and U.S. Environmental Protection Agency (EPA) Comments on Proposed Plan for the Canyon Disposition Initiative (221-U Facility) – DOE/RL-2001-29, Draft D Redline-Strikeout

#	Page; Line or	Comment Type/Comment
	Figure/Table	
		General
G-1		The preferred alterative for the facility will be a landfill. The
		legacy equipment and the contaminants they contain will be
		disposed of in this landfill. Thus, Land Disposal Restrictions
1		(LDR) and minimum technical requirements apply. The proposed
		plan, due to public notification requirements, will have to indicate
		the need for a variance from LDR for the mercury contained in
		the sludge within vessels present in the facility. The same
		notification requirement exists for the necessary waiver of
		minimum technical requirements since it is impracticable to
		install a liner-leachate collection system within the cells of the
		facility. Just because waste from other Hanford cleanup
	,	operations is not brought inside, does not change the fact that the
		facility is subject to landfill regulations.
G-2		The term "modified" is not necessary when describing caps that
		are RCRA C compliant. Whether you refer to them as alternative
		or otherwise, it is understood that the climate here is semi-arid
		and that will need to be factored into the design of the cap during
		the remedial design phase.
G-3		Need to include in the PP a discussion of the vessel in Cell 30. It
	•	is a potential criticality risk and the general approach for dealing
		with it needs to be indicated briefly.
G-4	·	A redline-strikeout version of this draft should be included in the
		Administrative Record for CDI U-Plant so that the public can
		track EPA's and Ecology's comments.
G-5		Both Ecology and EPA cannot recall being involved in the
		changes to the Contaminants of Potential Concern. This lack of
		cooperation is not a good practice by the project staff.
G-6		The title of the proposed plan and FS should not include "Canyon
		Disposition Initiative." It is understood that "CDI" is a good
		handle for the project, but what is really being done is a remedial
İ		action for the 221-U Facility (including the attached buildings).
		A discussion of CDI and the Agreement in Principle and related
	!	documents is appropriate inside the document. We can arrive at
		titles that more precisely describe the topic. The titles would have
}		to reflect the demolition of the ancillary facilities because the cost
		of that activity is reflected in the cost estimates. Somewhere
		inside the PP, you will have to indicate that the preferred
		alternative (and other alternatives) does not address the
		decontamination activities in the ancillary facilities and point to

#	Page; Line or Figure/Table	Comment Type/Comment
		the decision document that will. Also, this title change needs to be made within the document wherever the actual remedy is discussed rather than the program known as CDI.
G-7		EPA and Ecology never received the opportunity to review Draft C of this document. This violated the spirit of cooperation that helped the U-Plant characterization progress through difficult challenges and uncertain funding. The redline-strikeout no doubt reflects changes from Draft C to D, not B to D. So there may be changes that occurred without our knowledge if going by the redline-strikeout.
G-8		Wish to know more about the distribution of costs for ancillary facilities, especially since all the costs incurred by implementing the ROD need to be in the FS and PP. These costs and their breakdown for ancillary facilities need to be discussed in the FS and PP. The fate of the ancillary facilities under this remedial action needs to be explained, perhaps in the section on how everything fits into the U-Plant Area Closure.
G-9		There needs to be a section that lists the potential ARARs, at least for the preferred alternative. These would include RCRA landfill regulations and LDRs, among others.
		Specific
1	1; 31	Remove the word "lead" from this sentence, as it doesn't make sense in this case.
2	1; 38-42	Are you sure that the Tri-Party Agreement (TPA) identifies the 221-U Facility as a remediation site to be evaluated under Section 120 of CERCLA? It is a key facility and is identified in Section 8 of the TPA Action Plan. We don't recall it being in Appendix C. Please make sure your statement is accurate. We may need to update the TPA to reflect the transition of the facility to the remedial action realm.
3	1; 48	It would be better to use "clean up" instead of "remediation." Remember to limit the jargon for the lay reader.
4	Callout box	First paragraph, second sentence. Remove the words "new information or."
5	Callout box	Are we planning to hold a public meeting? Or just hold one if it is requested?
6	5; 11 and 7; 15	Replace "HCP EIS" with "land-use EIS" for clarity for the public.
7	5; 27-40	Why are there additions and subtractions to the contaminants of concern list? The regulators must be involved with and approve such changes.
8	5; 34-40	The wording needs to be changed to reflect the fact that the preferred alternative is a disposal alternative, yet no material is being brought in from other Hanford cleanup sites. Please make

#	Page; Line or	Comment Type/Comment
	Figure/Table	sure this distinction follows for the rest of the document. The
		ERDF contaminants would still not need to be added to the
		preferred alternative. Further illustrate the similarity between
		ERDF and Alternatives 3 & 4 by indicating that they would both
		receive waste from other CERCLA cleanup actions at Hanford.
9	6; 66-73	Indicate whether or not the risk evaluations were adequate for
	0,00.1	decision purposes.
10	6; 74	Need a brief description of what the Industrial Scenario is.
11	6; 92-94	We understand that this sentence was deleted because the
	-,	calculation of risk from outside waste brought in is not necessary
		in order for the baseline risk assessment to show a need for
		cleanup of the facility. However, there should be a discussion for
		Alternatives 3 and 4 that covers risk evaluation and development
		of waste acceptance criteria if one of these alternatives were to be
		chosen.
12	6; 100	Delete the word "conservatively."
13	7; Table 1	Need to explain this table in the text. Please clarify for the lay
		reader why the ">" is used on the error ranges.
14	8; 38	After heading, define remedial action objectives. Don't make
		people have to go to the glossary on an important topic like this.
15	8; 41-51	RAO 1 and 2 are very similar. Do we still need to have these be
16	0. 77.11.0	separate?
16	9; Table 2	Table title – add "(Industrial Use)" on the end. Font size for neptunium and its numeric values is larger than the
17	9; Table 2	rest. Maybe this was done to illustrate the change. Please make
		the entry for neptunium the same font size as the other
		contaminants in the table.
18	10; Table 3	Appreciate that you added a column for Hanford Site
	10, 14010 5	Background.
19	11; 35-38	Post-closure monitoring will not be limited to surface barrier
		performance. Groundwater monitoring and possibly vadose zone
		monitoring for contaminants will be necessary. Existing wells
		may be utilized for groundwater monitoring. This system will be
		designed by the project, not the groundwater operable unit
		program (but can be coordinated with them). A general
,		description of the options for monitoring systems must be
ļ		included in the PP, including mention of the standard one-up-
		three-down well system that is required for landfills. This
		description should be in the text, not just in Table 4.
20	12; 22-24	Don't remove this parenthetical example unless you fully describe
	1	these specifics about monitoring to fulfill comment 19 earlier in
	15.00	the text.
21	15; Callout	For the Callout box entitled, "Explanation of CERCLA
	box	Evaluation Criteria" remove "final" from in front of "feasibility

#	Page; Line or Figure/Table	Comment Type/Comment
		study" in number 8. This callout box should generically describe the nine CERCLA criteria.
22	16; 22-25	Don't distinguish Alternative 6 from 3 and 4 here, as they are all landfills. The difference would be for DOE's performance assessment since it would not be necessary for Alternative 6, as waste will not be brought inside from other Hanford cleanup sites.
23	16; 46	Replace "On the other hand" with "Alternatively."
24	16; 55-61	Should add a discussion of how waste acceptance criteria would be developed for Alternatives 3 and 4. What is meant by the last sentence? Do you mean no excess cancer risk over background?
25	16; 68	What do you mean by "relatively solid." This term doesn't have much meaning.
26	16; 86	Replace first "would" with "is predicted to" and delete second "would."
27	16; 94	Delete the word "unknown."
28	17; 18-19	Provide an explanation to back up the statement.
29	17; 33-34	Need to explain that while Alternative 6 involves less waste placement inside (for example the vessels on the deck placed into the cells), it's at least as easily implemented as Alternatives 3 and 4.
30	18; Table 5	Add "Description" after "Project" in the header for the first column.
31	18; Table 5	For the Project Description items under "Prepare the existing complex," provide an example activity in parentheses for each one. Also provide the same for "Closeout activities" under "Close complex."
32	18; Table 5	Need to go over changes in cost when we meet to discuss comments.
33	18; Table 5	There is an inconsistent use of significant figures in the costs.
34	18; Table 5	Please clarify whether or not the Monitoring and inspections costs are total or annual.
35	18; Table 5	Please explain why the costs for engineered barrier replacement are only for year 500.
36	18; Table 5	Why is there money for engineered barrier replacement under Alternative 1 (brownfield)?
37	18; Table 5	Are the total O & M costs discounted or undiscounted?
38	19; 15-18	Add "and equipment" after "building's structure."
39	19; 27-30	Move "final" from in front of "decision" and place it in front of "ROD." Need to spell out "ROD" the first time it is used.
40	19; 68-73	Could give examples of engineering controls and practices, possibly citing lessons learned from reactor interim safe storage.
41	19; 86	The type of sage is actually referred to as "big" sage, not "large" sage. The text is describing the type of sage, not the size of the communities.

#	Page; Line or Figure/Table	Comment Type/Comment
42	20; 79	Should add a comma before and after "including remediation."
43	21	Why are you deleting the bottom three original citations of supporting documents? The supporting documents should not be narrowed down to just those specifically for the 221-U facility.
44	22	For the points of contact, delete the word "Representative." We have our titles listed and they are more descriptive of our decision-making authority than "representative." Also, delete the reference to Region 10, so that it is just the U.S. Environmental Protection Agency.

Washington State Department of Ecology (Ecology) and U.S. Environmental Protection Agency (EPA) Comments on Final Feasibility Study for the Canyon Disposition Initiative (221-U Facility) – DOE/RL-2001-11, Rev. 1, Draft B Redline-Strikeout

#	Page; Line or Figure/Table	Comment Type/Comment
		General
G-1		Pleased with the technical writing that made the feasibility study
		(FS) document more readable.
G-2		Vessels in the canyon cells and deck are being disposed of in all
		of the "containment" alternatives, thus Land Disposal Restrictions
		apply. As we have discussed in some length, a variance will be
		needed for the mercury in the shallow heals of sludge in many of
	}	these vessels. Even DOE's legal has agreed this is not difficult
		and we at EPA are very disappointed that this issue was skirted
		(for the vessels) in the document and the proposed plan. The fact
		that you will seek a variance has to be indicated in the proposed
		plan, as there is a public notification requirement.
G-3		All of the containment alternatives will involve disposal in the
		cells where a liner-leachate collection system is impracticable. A
		waiver from this requirement will be necessary and also needs to
		be mentioned in the proposed plan for public notice.
G-4		The term "modified" is not necessary when describing caps that
		are RCRA C compliant. Whether you refer to them as alternative
		or otherwise, it is understood that the climate here is semi-arid
		and that will need to be factored into the design of the cap during
		the remedial design phase.
G-5		Need to include in the FS a discussion of the vessel in Cell 30. It
		is a potential criticality risk and the general approach for dealing
		with it needs to be defined.
G-6	i	When an air-monitoring plan is developed post-ROD, it needs to
,		incorporate the fact that the Laser Interferometer Gravitational-
		wave Observatory (LIGO) will most likely be where the closest
		public receptor is available for exposure to emissions during
		remedial action implementation. Any discussion in the FS about
		the nearest public receptor needs to address LIGO. Controls
		(possibly BARCT) for limiting emissions during alternatives
		involving demolition will need to be designed based on
		air-dispersion modeling for LIGO.
G-7		A redline-strikeout version of this draft should be included in the
		Administrative Record for CDI U-Plant so that the public can
		track EPA's and Ecology's comments.
G-8		Both Ecology and EPA cannot recall being involved in the
		changes to the Contaminants of Potential Concern. This lack of
		cooperation is not a good practice by the project staff.
G-9		Please do not use the term "Final Feasibility Study" next time

#	Page; Line or Figure/Table	Comment Type/Comment
		around. It would be better to refer to a "Phase II or III" FS. The problem is that if there are public comments that drive significant changes, the FS may have to be reworked to the degree it wouldn't be the same "final" document.
G-10		The title of the proposed plan and FS should not include "Canyon Disposition Initiative." It is understood that "CDI" is a good handle for the project, but what is really being done is a remedial action for the 221-U Facility (including the attached buildings). A discussion of CDI and the Agreement in Principle and related documents is appropriate inside the document. We can arrive at titles that more precisely describe the topic. Also, this change needs to be made within the document wherever the actual remedy is discussed rather than the program known as CDI.
G-11		It is unclear how the ancillary facilities will be dealt with under this ROD. The cost of decontamination is not included (just demolition). Does that mean decontamination is listed under some other decision document and paid for by a different program? Is there going to be a separate decision document (i.e. Action Memo) to implement the scope of the ancillary facilities EE/CA? Or will the EE/CA be implemented by the ROD? If so, the costs would all (including decontamination) have to be included in the FS and PP. Will the EE/CA cover the evaluation of both decontamination and demolition, as there does not appear to be enough discussion of either in the FS for the U-Plant? Once we sort this out, the particulars need to be written into the FS and PP along related documents in the U-Plant Area Closure.
1	ES-I; 7-9	Specific Return this to the original language. The Tri-Party Agreement addresses DOE authorities, thus it is still pertinent to say that it governs cleanup even in those few instances when EPA and Ecology play a less direct role. Please correct throughout occurrences.
2	ES-v	Show the cost of Alternative 1.
3	1-1; 37	The term "quick decision" makes it sound hasty. Please rewrite.
4	2-4; 17	Please spell out WIDS the first time it is used.
5	2-10; 33-34	The analogous site approach needs to be defined briefly (somewhere near the first use of the term) for the reader's benefit.
6	2-11; 44	Please end the sentence with, "at these adjacent sites."
7	2-12; 1-4	Please explain why the waste site ROD would need to be amended.
8	2-14; 2-12	Be consistent with the usage of the terms "debris" and "waste."
9	2-15; 11-13	Leave the reference to the NCP in.
10	2-16; 21	Please remove the bold type on the reference. Be sure and do this elsewhere, too.

#	Page; Line or Figure/Table	Comment Type/Comment
11	3-6; 5-15	Need to determine if Sagemoor is still where the maximally exposed public person would be considering LIGO now has the
		closest members of the public. May not make much difference but may need to be modeled to determine risk.
12	3-6; 39-41	What is the reason for this deletion?
13	3-13; 27-37	What are the reasons for the changes to the Contaminants of Potential Concern list? The regulators must approve this list.
14	3-13; 38-45	This text is still in the proposed plan. Leave the text in this FS as well.
15	3-14 to 3-18	When we meet to discuss comments, we need to rework the entire section 3.4. There are several issues with the language used in the text, as well as the removal of the inadvertent intruder scenario discussion, removal of the air emissions and LIGO discussion, removal of ecological risk discussion, among others. Even though some of these things are discussed in other sections or in the appendices, they need to be included here.
16	3-28; Table 3-1	The error ranges on the ICRs are not clearly represented. It may not be apparent to the lay reader why there are ">" signs in front of the error term. A footnote explaining usage would be good.
17	3-29; Table 3-2	Why was Neptunium-237 added?
18	3-30; Table 3-3	Column entitled, "Groundwater and Columbia River Protection." It would be great if there were some display scheme applied that would show which one was the limiting value, groundwater or river protection.
19	3-30/31; Table 3-3	Mention somewhere in the text the recent change in the way some of the values were calculated. That is, don't just list the types of calculations in the footnotes and remove the old footnotes. The reason for this request is that the public can view the earlier draft of this document in the Administrative Record and might wonder about the changes in some of the values.
20	4-3; 3	Remove the addition of "transferred to the 221-U Facility" from this sentence. Anything disposed of in the canyon, whether it is inside at the time, or brought in under any containment alternative would have to meet Land Disposal Restrictions. You can't just
21	4-3; 30-38	add some text and remove this requirement. Should start the paragraph with something other than "This would" Needs more connection to flow better.
22	4-3; 33	Please remove the comma after "cleanups" so that the acronym "RCRA" is tied to "closure actions."
23	4-4; 7	Repetitive use of "(a)(1)."
24	4-4; 30-33	Please clarify.
25	4-6; 6-23	Need to add a discussion about how the detailed risk information on the waste streams and performance of the disposal systems

#	Page; Line or Figure/Table	Comment Type/Comment
		under either Alternative 3 or 4 will be applied to develop waste acceptance criteria that will help the disposal systems stay within the acceptable risk range.
26	4-7; 29-30	There seems to be an aversion to emissions issues. Why not leave this text in and explain that the prudent use of controls will not mobilize contaminants or otherwise be a problem?
27	4-10; 44-45	There needs to be some explanation as to why the lowest gallery will not contain waste as planned earlier. Is it because all of the equipment on the deck can be size reduced and placed in the cells and no waste is planned to be brought in from other Hanford cleanup sites? If so, please indicate this.
28	4-12; 6-15	Would like to know more about this potential borrow area. Is this an area that had significant stands of sage before the wildfire in 2000?
29	4-15; 6-11	Is this enough description, or are we relying too much on another document?
30	4-15; 28-29	Explain the decision to use risk-based standards for industrial soils instead of "and/or WAC 173-340 MTCA."
31	4-17; 27-28	Why delete the discussion of removing the equipment and piping from the operating gallery to make room for container placement under Alternative 3?
32	4-17; 39-41	The discussion of Alternative 6 belongs in the section on Alternative 6.
33	4-26; 22-23	Please explain why the bottom two galleries will not be used for disposal. If it is because all of the size-reduced equipment on the deck fits into the cells and no outside waste will be brought in, then say this.
34	4-30; 35-36	As mentioned in comment G-5, you need to discuss the criticality risks for this cell and generally how you will address them. As EPA understands it, the high dose rate is coming from a vessel that originated in REDOX and contains concentrated fission products and material susceptible to neutrons. Obviously, this material will be leaving the building.
35	5-8; 32-35	The statement made in the last sentence of this paragraph is not true. Delete this sentence. There will be residual risk under the brownfield cleanup described in Alternative 1. However, residual risk should be within the acceptable range based on the exposure models and contaminant levels left behind in the shallow and deep zones.
36	5-9; 5-6	This sentence about the level of treatment could be rephrased and compared with the other alternatives. Then it would be useful enough to remain in the document. Like the way you addressed treatment on page 6-3, lines 39-42.
37	5-10; 27-28	There would more than likely will be some proximal air

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-	Figure/Table	monitoring for contaminants during construction of the remedy to
		confirm that emissions of contaminants are below specified limits
		from the air-monitoring plan. Your discussion in section 5.8
		doesn't even get as specific as the comment sentence above.
		Somewhere this requirement for sampling other than at the boundaries of the Hanford site needs to be spelled out in a little
		more detail in the FS.
38	5-13; 4-5	Could add "or variances" after "waivers."
39	5-14; 11-19	It would be beneficial to indicate that this information would be
	3 14, 11 15	used to help develop waste acceptance criteria for the facility.
40	5-15; 7-11	This section of the paragraph needs to be written more clearly.
41	5-19; 18-19	Does this mean you replace or make major repairs once, or twice
1	;	(once at the end of the 1000 years)? This "rate" language is
		almost Orwellian. Come out and say what is planned and
		budgeted for. Then be consistent for the whole document.
42	5-19; 28-36	Just like for Alternative 3, it would be beneficial to have the
		discussion of how this information would go into the
43	5.24.2.5	development of the waste acceptance criteria.
43	5-24; 2-5	Do you mean maintenance activities are needed in perpetuity after the remedy, or without the remedy? If you mean after the
		remedy, does this include the period after 1000 years?
44	5-25; 6-8	Please explain why this text has been removed. The specific
		parameters that would result from these sources of requirements
		and guidance should still be applicable because risk assessment
		was performed for the materials in the facility. These same
		materials would be disposed of in Alternative 6.
45	5-25; 6-8	Throughout the document it is unclear how and/or when WAC
		173-340 MTCA would be implemented. Consistency is unclear
		as sections have deleted MTCA and kept WAC 173-340 or
ļ		deleted WAC 173-340 MTCA all together. Explain the path this project is taking and if this scenario is consistent with the U-Plant
		Geographical Area Closure Waste Sites Focused Feasibility
		Study.
46	5-25; 10-14	EPA has the understanding that the baseline risk for Alternative 6
[did not take credit for a cap. Are you saying that modeling of cap
		performance was conducted to illustrate that the remedy will meet
		the acceptable risk range by limiting infiltration and containing
}		contaminants? You might continue by saying that the overly
		conservative modeling done for ERDF did not take credit for a
47	5 28: 26 21	similar cap that will be installed over ERDF. Please clarify. Wish to know more about the distribution of costs for ancillary.
+'	5-28; 26-31	Wish to know more about the distribution of costs for ancillary facilities, especially since all the costs incurred by implementing
		the ROD need to be in the FS and PP. Seems like this paragraph
		should be in the Cost section.
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48	5-31; 23-25	Would Alternative 6 have a similar number of waste loads (1,100) to those from Alternatives 3 and 4? How many loads would go to ERDF under Alternative 6 considering much of the 221-U building will be piled on or alongside the lower portion of the building? Do the loads in any of the alternatives count hauling the ancillary facilities away?
49	5-38; 18-21	You should specify that the upper bound is for Alternative 3. Also, it is the remediation of the U-Plant that requires the material, not CDI. Need to do more than just change the title of the document to be consistent.
50	5-40; Table 5-1	Please provide a footnote that indicates whether or not the barrier costs for Alternative 1 are for ERDF. There should be no "barrier" costs for a brownfield cleanup, except for what would be sent to ERDF. Please clarify.
51	5-40 to 5-43; Tables 5-1 to 5-4	There should be some explanatory text in the Sub-Level Function entry for monitoring and inspections. Need to draw off of the assumptions that went into the cost estimate.
. 52	5-43; Table 5-4	What are the reasons for the reductions in cost in this revision? Please explain each change.
53	6-5; 3-5	This was added in response to concerns from a representative of the State of Oregon about worker safety. Please leave it in, but rephrase it for clarity.
54	6-6; 22	Word "fill" used too many times.
55	6-8/9; Table 6-1	Let's go over the specifics of why the costs changed when we get together to discuss the comments.
56	Chapter 7	Don't forget to reference air pollution standards that will apply to control of emission of contaminants during construction of the remedy.
57	7-5; 24-26	Please don't forget to remove the bold type. Even though referencing a draft document is not an ideal practice, it is understood that there is no alternative in this case.
58	A-5; Table A-1	Again, why were contaminants added to the list of COPCs? Why have all of the concentrations changed? Let's discuss this in some detail.
59	B-3; 17 and	Agree with the possible need for downward adjustment of the
	B-6; 42-43	cleanup levels. However, this adjustment would need to be well
	and B-7; 18-	before the time of cleanup verification. Otherwise, you would
	19 and B-8; 34-35 and B-	have to remobilize to remove, treat and dispose when necessary.
	9; 35 and B-	ļ
	10; 25. Also,	
	footnote for	
	Table B-7	DI 1 1 0 00 1 1 1 1 00 00 1 1 1 1 1 1 1 1
60	C-3; 18-25	Please explain why 0.98 was selected as the runoff coefficient. It

#	Page; Line or Figure/Table	Comment Type/Comment
		seems there is a lot more to the function of a cap than runoff and
		that this correlation with the transmissivity is an
61	F-14; 25-26	oversimplification. Please explain more about how risk assessment work (put off
"	F-14, 25-20	because of lack of information about possible waste streams for
		disposal) would provide results that are factored into a decision
		on removing underground piping. Are you talking about risk
		work to be done for the pipeline EE/CA?
62	F-23; 37-44	Don't pass the buck. The project will have to design the
		groundwater monitoring system, not the groundwater operable unit. This is true with any of the containment alternatives. Since
}		all of the containment alternatives involve disposal in a landfill,
		the one up and three down groundwater monitoring requirement
		is applicable. Some existing wells may be utilized for this
		configuration. If vadose zone monitoring is performed for
		detection of contaminant movement, it will not be limited to
		performance monitoring of the cap. The minimum of the one up
		and three down needs to be specified in each detailed discussion
63	H-1; 13	of monitoring for the alternatives in the FS. Let's apply the term "vessels" to be consistent.
64	H-4; 11-13	Why would a new ventilation system be installed under
"	11-4, 11-15	Alternative 6, but not necessarily under Alternatives 3 and 4?
		Later, you indicate it may not be necessary for Alternative 6.
		Please explain and then make consistent.
65	H-7; 3-4	This deleted sentence needs to be replaced with, "Legacy waste
		disposed of in the building's lower structure will meet all Land
		Disposal Restrictions, or obtain a waiver or variance, as well as
		other applicable or relevant and appropriate requirements." You
		already know that mercury is too high in some of the sludge in the vessels to meet LDR and will require a variance since a treatment
		other than the one prescribed for mercury by regulations will be
		used. This fact needs to be written somewhere in this appendix as
		well as in the main part of the FS in order to be consistent with
		changes in the PP. There are also two samples (powders) that
		were collected and are being stored in the canyon for later
	-	analysis as agreed to by the Tri-Parties. The post-ROD analysis
		of these samples will provide lessons learned for safely dealing
		with legacy equipment at U-Plant and the other canyon buildings. You shouldn't rule out sampling, or surveying with possible
		radiation modeling, to plan the removal of the material in Cell 30.
- 66	H-13; 27-33	Use "vessels" for consistency.
	J-2; section	J.2 Standards for Soil Cleanup and Groundwater and River
	J.2, first	Protection: Provide the specific reference where it states "WAC
	paragraph,	173-340 acknowledges that numeric cleanup levels will not be

#	Page; Line or Figure/Table	Comment Type/Comment
	last sentence	attained but that reliance on controls"
67	J-2; third	While the No Action alternative is necessary for comparison, it
	paragraph	does not provide information on the costs of maintaining the
	1	facility in a safe mode. It would also be very beneficial to
1		indicate somewhere how much is being spent on surveillance and
	ļ	maintenance every year.
68	J-4; bottom of	Good, you indicate that waivers will be sought for the liner-
	page	leachate collection system requirement for Alternatives 3, 4 & 6.
69	J-5; first full	Bad, legacy waste will be disposed of in the cells and they also
	sentence on	will not be able to meet the liner-leachate requirement under
	page	Alternative 6. So a waiver will be necessary. Revise the language accordingly.
70	J-17;	Clean Water Act – Rationale for Use: Yes there are hazardous
.	Table J-1	substances present in the facility, why is this ARAR deleted?
71	J-18;	Seems like the nuclear power operator's environmental radiation
_	Table J-1	protection standards are only marginally relevant and appropriate.
		Please elaborate on why this was selected as a potential ARAR.
72	J-25;	Federal Compliance with Right to Know LawsWhy is this
1	Table J-1	crossed out? Why have the others on this page been crossed out?
73	J-33;	Landfills, WAC 173-303-665 - Rationale for use: The landfill
	Table J-2	regulations are applicable even under Alternative 6 because the
		equipment inside is being disposed of!!! Would you prefer to say
		that the equipment was waste that was stored in the facility?
		Correct the text in this cell to reflect the applicability of the
ĺ		landfill regulations. It's hard to believe after all the work to
i		determine which RCRA regulatory scheme (adopted here by the
!		State) applies to this remedy that you would assert that it's not
74	Appendix K	applicable to Alternative 6. This would be a good place to describe the yearly costs of
'	Appellulx K	surveillance and maintenance. Part of the point of showing these
		costs is that you reassure the public that this building hasn't just
		been let go (that it is currently being maintained in a safe
		configuration).
		Typographical Errors
T-1	ES-ii; 14	This sentence needs to be fixed.
T-2	2-9; 32	Change "their" to "the."
T-3	2-12; 39	It appears that the word "for" is necessary.
T-4	4-9; 25	Need to delete the "s" at the end of "Alternatives."
T-5	4-11; 40	Shouldn't there be an "at" after "construction"?
T-6	4-12; 10	There should be a "the" between "fulfill" and "fine-textured."
T-7	4-28; 31	Missing a period.
T-8	4-31; 7	Can't tell if the correction to "42" was made or not due to the
	<u> </u>	nature of the redline strikeout.

#	Page; Line or Figure/Table	Comment Type/Comment
T-9	5-33; 4	Shouldn't "Nonzero" have a dash for this usage?
T-10	Entire document (including on the bottom margin)	Don't forget to change the date of the document to reflect its upcoming release.
T-11	J-4, Section J.3.1, end of third sentence	Replace "disposed" with "disposal."
T-12	J-6; Section J.4.2, third sentence	Remove the "be" in between "not" and "require."